Db 5 EKLPPGWEKRMSRPSGRGYYFNHITNPSQWERPSGNSSS 43

RESULT 12
AAB74938
ID AAB74938 standard; peptide; 34 AA.
XX
AC AAB74938;
XX
DT 27-JUN-2001 (first entry)
XX
DE Peptidyl prolyl isomerase WW domain containing peptide.
XX
KW Peptidyl prolyl isomerase; Pin-1; WW domain; modulator; kinase;
KW phosphatase; 14-3-3 protein.
XX
OS Unidentified.
XX
PN WO200125477-A2.
XX
PD 12-APR-2001.
XX
PF 29-SEP-2000; 2000WO-GB003736.
XX
PR 01-OCT-1999; 99GB-00023208.
XX
PA (CAMB-) CAMBRIDGE DRUG DISCOVERY LTD.
XX
PI Frearson JA;
XX
DR WPI; 2001-266323/27.
XX
PT Identifying modulator of kinase or phosphatase activity, involves
PT contacting enzyme and its substrate in presence and absence of the
PT modulator, contacting the substrate with a reporter and comparing its
PT binding.
XX
PS Disclosure; Page 3; 22pp; English.
XX
CC The present invention describes a method for identifying a modulator (I)
CC of kinase or phosphatase activity. The method involves contacting the
CC enzyme and its substrate (S) in the presence and absence of (I),
CC contacting (S) with a reporter (R) excluding a natural antibody, which
CC binds phosphorylated (S) with higher affinity than unphosphorylated (S),
CC and comparing the binding of (R) to (S) treated in the presence of (I)
CC than in the absence of (I). The method is useful for identifying a
CC modulator of serine/threonine kinase activity and phosphatase activity.
CC Use of recombinant proteins or synthetic peptides provide an economical,
CC rapidly generated, non-exhaustible supply of reporter, offering
CC considerable practical advantage over antibodies. The present sequence
CC represents a peptidyl prolyl isomerase (Pin-1) amino acid sequence which
CC contains a WW domain. WW domain containing proteins have been identified
CC as having phosphoserine or phosphothreonine binding activities. WW domain
CC containing proteins can be used as reporters in the method of the
CC invention
XX
SQ Sequence 34 AA;

Query Match 88.8%; Score 191; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 9.6e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EKLPPGWEKRMSRSSGRVYYFNHITNASQWERPS 34
||||||||||||||||||||||||||||||||||
Db 1 EKLPPGWEKRMSRSSGRVYYFNHITNASQWERPS 34

RESULT 13
AAU32052
ID AAU32052 standard; protein; 195 AA.
XX
AC AAU32052;
XX
DT 18-DEC-2001 (first entry)
XX
DE Novel human secreted protein #2543.
XX
KW Human; vaccination; gene therapy; nutritional supplement;
KW stem cell proliferation; haematopoiesis; nerve tissue regeneration;
KW immune suppression; immune stimulation; anti-inflammatory; leukaemia.
XX
OS Homo sapiens.
XX
PN WO200179449-A2.
XX
PD 25-OCT-2001.
XX
PF 16-APR-2001; 2001WO-US008656.
XX
PR 18-APR-2000; 2000US-00552929.
PR 26-JAN-2001; 2001US-00770160.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Drmanac RT;
XX
DR WPI; 2001-611725/70.
XX
PT Nucleic acids encoding a range of human polypeptides, useful in genetic
PT vaccination, testing and therapy.
XX
PS Claim 20; Page 548-549; 765pp; English.
XX
CC The invention relates to novel human secreted polypeptides. The
CC polypeptides and antibodies to the polypeptides are useful for
CC determining the presence of or predisposition to a disease associated
CC with altered levels of polypeptide. The polypeptides are also useful for
CC identifying agents (agonists and antagonists) that bind to them. Cells
CC expressing the proteins are useful for identifying a therapeutic agent
CC for use in treatment of a pathology related to aberrant expression or
CC physiological interactions of the polypeptide. Vectors comprising the
CC nucleic acids encoding the polypeptides and cells genetically engineered
CC to express them are also useful for producing the proteins. The proteins
CC are useful in genetic vaccination, testing and therapy, and can be used
CC as nutritional supplements. They may be used to increase stem cell
CC proliferation; to regulate haematopoiesis; and in bone, cartilage, tendon
CC and/or nerve tissue growth or regeneration; immune suppression and/or
CC stimulation; as anti-inflammatory agents; and in treatment of leukaemias.
CC AAU29510-AAU33304 represent the amino acid sequences of novel human
CC secreted proteins of the invention
XX
SQ Sequence 195 AA;

Query Match 81.4%; Score 175; DB 4; Length 195;
Best Local Similarity 66.0%; Pred. No. 1.2e-15;
Matches 35; Conservative 0; Mismatches 0; Indels 18; Gaps 1;

Qy 5 PGWEKRMSRSS----------GRVYYFNHITNASQWERPSGNSSS 39
|||||||||||| ||||||||||||||||||||
Db 1 PGWEKRMSRSSVVNTQEALPTAAIPRDAKGRVYYFNHITNASQWERPSGNSSS 53

RESULT 14
ABG11947
ID ABG11947 standard; protein; 259 AA.
XX
AC ABG11947;
XX
DT 18-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #11938.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.

Exhibit D

XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US008631.
XX
PR 31-MAR-2000; 2000US-00540217.
PR 23-AUG-2000; 2000US-00649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS76134.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.
XX
PS Claim 20; SEQ ID NO 42306; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic
CC amino acid sequences of the invention. Note: The sequence data for this
CC patent did not appear in the printed specification, but was obtained in
CC electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 259 AA;

Query Match 81.4%; Score 175; DB 4; Length 259;
Best Local Similarity 66.0%; Pred. No. 1.7e-15;
Matches 35; Conservative 0; Mismatches 0; Indels 18; Gaps 1;

Qy 5 PGWEKRMSRSS----------GRVYYFNHITNASQWERPSGNSSS 39
|||||||||||| ||||||||||||||||||||||
Db 1 PGWEKRMSRSSVVNTQEALPTAAIPRDAKGRVYYFNHITNASQWERPSGNSSS 53

RESULT 15
AAB21943
ID AAB21943 standard; peptide; 31 AA.
XX
AC AAB21943;
XX
DT 02-JAN-2001 (first entry)
XX
DE Pin1/human peptide containing a WW-domain #1.
XX
KW WW-domain; protein-protein interaction; cell growth regulation;
KW protein degradation regulation; Alzheimer's; Dementia pugilistica;
KW Down's syndrome; Parkinson's disease; Pick's; neurodegenerative;
KW microtubule assembly; tau; hyperplasia; neoplasia; malignancy; psoriasis;
KW retinosis; atherosclerosis; leukaemia; lymphoma; papiloma;
KW pulmonary fibrosis; rhematoid arthritis; multiple sclerosis;
KW muscular dystrophy; human.
XX
OS Homo sapiens.
XX
PN WO200048621-A2.
XX
PD 24-AUG-2000.
XX
PF 18-FEB-2000; 2000WO-US004278.
XX
PR 18-FEB-1999; 99US-00252404.
XX
PA (BETH-) BETH ISRAEL DEACONESS MEDICAL CENT.
XX
PI Lu KP, Zhou XZ;
XX
DR WPI; 2000-594014/56.
XX
PT Mediating protein-protein interactions, useful for regulating cell growth
PT and for treating neurodegenerative disorders, comprises modulating
PT binding of WW domain containing polypeptide with phosphorylated ligand.
XX
PS Disclosure; Fig 2; 82pp; English.
XX
CC The present invention relates to a method for mediating protein-protein
CC interaction, which comprises modulating the binding of a WW-domain
CC containing peptide with a phosphorylated ligand e.g. tau. WW-domains are
CC highly conserved regions of approximately 40 amino acid residues with two
CC invariant tryptophans (W) in a triple stranded beta-sheet. The present
CC sequence is one such WW-domain. When a WW-domain containing peptide is
CC phosphorylated at serine or threonine residues, dephosphorylation of
CC ligands bound to the peptide is inhibited. The present peptide may be
CC useful for mediating protein-protein interaction, regulating cell growth,
CC regulating protein degradation, restoring the function of tau to bind
CC microtubules and promote or restore microtubule assembly in
CC neurodegenerative diseases e.g. Alzheimer's, Dementia pugilistica, Down's
CC syndrome, Parkinson's disease, Pick's disease, multiple sclerosis,
CC muscular dystrophy, Corticobasal degeneration, Frontotemporal dementias,
CC Myotonic dystrophy, Niemann-Pick disease, prion disease with tangles,
CC progressive supranuclear palsy and subacute sclerosing panencephalistis.
CC In addition, inhibitors or stimulators of interactions between WW-domains
CC and ligands of the present invention can be used to treat hyperplastic
CC and neoplastic disorders e.g. all forms of malignancies, psoriasis,
CC retinosis, atherosclerosis resulting from plaque formation, leukaemias,
CC benign tumour growth, lymphomas, papilomas, pulmonary fibrosis and
CC rhematoid arthritis
XX
SQ Sequence 31 AA;

Query Match 80.0%; Score 172; DB 3; Length 31;
Best Local Similarity 96.8%; Pred. No. 3.5e-16;
Matches 30; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 3 LPPGWEKRMSRSSGRVYYFNHITNASQWERP 33
|||||||||||||||||||| |||||||||
Db 1 LPPGWEKRMSRSSGRVYYFNHTTNASQWERP 31

RESULT 16
ABG12572
ID ABG12572 standard; protein; 191 AA.
XX
AC ABG12572;
XX
DT 18-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #12563.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX